

## **AMENDMENTS TO THE SPECIFICATION**

**Please amend the paragraph beginning on page 4, line 7, as follows:**

In order to achieve the above-mentioned objective, a admixture machine for infusion in accordance with ~~claim 1 of the present invention~~ the first aspect, which is used for admixture preparation predetermined does of a liquid form drug to be administrated to a patient and a diluent, is provided with: an information input unit for inputting predetermined information involving data concerning at least the body surface area, the area under the plasma drug concentration curve (AUC) or the body weight of the patient; a liquid delivery does calculation unit for determining the does of a liquid form drug and the amount of a diluent which are both to be delivered based upon the information inputted through the information input unit and calculating the delivery does of the liquid form drug and the diluent based upon the determined does thereof; a guide unit for inserting a mixing tube which provides channels of the liquid form drug and the diluent; and liquid delivery units which are in contact respectively with a liquid form drug channel through which the liquid form drug flows and a diluent channel through which the diluent flows in the mixing tube to be inserted into the guide unit and thus deliver the liquid form drug and the diluent based on the delivery does of the liquid form drug and the diluent as determined in the liquid delivery does calculation unit.

**Please amend the paragraph beginning on page 4, line 29, as follows:**

Moreover, a admixture machine for infusion in accordance with ~~claim 2 of~~

~~the present invention~~ the second aspect, which relates to the admixture machine for infusion ~~disclosed in claim 1~~ according to the first aspect, is designed so that the predetermined information to be inputted to the information input unit further includes a name of a patient for medication, and this admixture machine for infusion further includes a memory unit capable of storing at least the name of the patient, the body surface area, the AUC or the body weight of the patient in association with one another, and upon input of a name of a patient into the information input unit, at least the body surface area, the AUC or the body weight in association with the inputted patient name is called for by referencing the memory unit, and automatically inputted to the information input unit. With this arrangement, by inputting a name of a patient for medication into the information input unit, predetermined does of a liquid form drug to be administrated to the patient and a dilution solution based upon information concerning the body surface area of the patient are admixed.

**Please amend the paragraph beginning on page 5, line 17, as follows:**

A admixture machine for infusion in accordance with ~~claim 3 of the present invention~~ the third aspect, which relates to the admixture machine for infusion ~~disclosed in claim 1 or claim 2~~ according to the first or second aspect, is designed so that the predetermined information to be inputted to the information input unit further includes the body surface area of the patient for medication, the AUC, the body weight, the name of a liquid form drug to be administrated, the does of the liquid form drug, and the does of the liquid form drug per unit body surface area or per body weight of the patient with respect to the liquid form drug or the does of the liquid form drug determined based upon the AUC, and the calculation unit automatically calculates the value of the does of the liquid form drug based upon at least the body surface area, the AUC

or the body weight of the patient inputted to the information input unit, and the admixture machine for infusion further includes a memory unit that is capable of storing the name of the liquid form drug and the does of the liquid form drug per unit body surface area or per weight or the does of the liquid form drug determined based upon the AUC in association with one another and a warning unit which compares the does of the liquid form drug individually inputted from the information input unit with the value of the does of the liquid form drug automatically calculated in the calculation unit, and, when the difference is greater than a predetermined value, gives warning. With this structure, it becomes possible to prevent an excessive does of medication due to an erroneous inputting operation.

**Please amend the paragraph beginning on page 6, line 13, as follows:**

Moreover, a admixture machine for infusion in accordance with ~~claim 4 of the present invention~~ the fourth aspect, which relates to the admixture machine for infusion ~~disclosed in claim 3 according to the third aspect~~, is designed so that the memory unit further stores at least one piece of information selected from application and medication methods.

**Please amend the paragraph beginning on page 6, line 18, as follows:**

A admixture machine for infusion in accordance with ~~claim 5 of the present invention~~ the fifth aspect, which relates to the admixture machine for infusion ~~disclosed in claim 1 or claim 2 according to the first or second aspect~~, is designed so that based upon information given from the information input unit, the calculation unit automatically calculates the does of the liquid form drug and the amount of the dilution solution. With this arrangement, by

inputting predetermined information to the information input unit, the does of the liquid form drug and the amount of the dilution solution to be supplied are automatically calculated.

**Please amend the paragraph beginning on page 6, line 28, as follows:**

Moreover, a admixture machine for infusion in accordance with ~~claim 6~~ the sixth aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 5 according to the first to fifth aspect~~, is designed so that, with respect to the inputting process of the body surface area or the AUC of the patient, by inputting parameters required for calculating the body surface area or the AUC, calculations are automatically carried out through predetermined operation expressions based upon these parameters so that the results are automatically inputted. With this arrangement, by inputting parameters required for calculating the body surface area, the admixture machine for infusion is allowed to calculate the body surface area.

**Please amend the paragraph beginning on page 7, line 10, as follows:**

A admixture machine for infusion in accordance with ~~claim 7~~ the seventh aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 6 according to the first to sixth aspect~~, is further provided with a bar-code reading unit which inputs at least one portion of pieces of information to the information input unit by reading bar codes. With this arrangement, it becomes possible to simplify the inputting operation of predetermined information to the information input unit.

**Please amend the paragraph beginning on page 7, line 18, as follows:**

Moreover, a admixture machine for infusion in accordance with ~~claim 8~~ the eighth aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 6 according to the first to sixth aspect~~, is further provided with a signal receiving unit which inputs at least one portion of pieces of information to the information input unit by using IC tag signals.

**Please amend the paragraph beginning on page 7, line 24, as follows:**

A admixture machine for infusion in accordance with ~~claim 9~~ the ninth aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 8 according to the first to eighth aspect~~, is further provided with a memory-card reading unit which inputs at least one portion of pieces of information to the information input unit by reading a memory card. With these arrangements, it becomes possible to simplify the inputting operation of predetermined information to the information input unit.

**Please amend the paragraph beginning on page 8, line 2, as follows:**

Moreover, a admixture machine for infusion in accordance with ~~claim 10~~ the tenth aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 9 according to the first to ninth aspect~~, is designed so that a printing device, which is capable of printing at least one portion of pieces of information to be inputted to the information input unit on a pasting label, is prepared in a connectable state. With this arrangement, it becomes possible to print information required for medication

on a pasting label.

**Please amend the paragraph beginning on page 8, line 11, as follows:**

A admixture machine for infusion in accordance with ~~claim 11~~ the 11<sup>th</sup> aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 10 according to the first to tenth aspect~~, is further provided with a flow meter for measuring the amount of flow passing through a mixing tube to be inserted to the guide unit, and in this arrangement, the amount of flow, measured by the flow meter, is compared with the amount of liquid delivery calculated by the calculation unit so that the quantity of liquid delivery is controlled through a feed-back controlling process. With this arrangement, it becomes possible to carry out a admixing and preparation operation with high precision.

**Please amend the paragraph beginning on page 8, line 22, as follows:**

Moreover, a admixture machine for infusion in accordance with ~~claim 12~~ the 12<sup>th</sup> aspect of the present invention, which relates to the admixture machine for infusion ~~disclosed in any of claims 1 to 11 according to the first to 11<sup>th</sup> aspect~~, is designed so that the liquid form drug is an oncology drug for infusion. Thus, the admixture machine for infusion of the present invention is suitably used for admixture an anti-tumor drug for infusion.

**Please amend the paragraph beginning on page 8, line 29, as follows:**

A admixture machine for infusion in accordance with ~~claim 13~~ the 13<sup>th</sup> aspect of the present invention, which relates to the admixture machine for

~~infusion disclosed in any of claims 1 to 12~~ according to the first to 12<sup>th</sup> aspect, is designed so that the mixing tube to be inserted to the guide unit of the admixture machine for infusion is branched into a tong shape, that is, a tong structure having one of branched ends serving as a liquid form drug channel to be connected to a liquid form drug container for packing a liquid form drug, the other end serving as a diluent channel to be connected to a diluent container for packing a diluent, and the branch portion serving as a mixing channel in which the liquid form drug channel and the diluent channel are joined to each other, and in this structure, the guide unit of the admixture machine for infusion is formed into a tong shape to which the tong-shaped mixing tube is inserted. This arrangement makes it possible to utilize the mixing tube as a disposable part.

**Please amend the paragraph beginning on page 9, line 15, as follows:**

Moreover, a mixing tube in accordance with ~~claim 14~~ the 14<sup>th</sup> aspect of the present invention, which is the mixing tube to be used in the admixture machine for infusion ~~according to any of claims 1 to 13~~ the first to 13<sup>th</sup> aspect, has a structure branched into a tong shape, that is, a tong structure having one of branched ends serving as a liquid form drug channel to be connected to a liquid form drug container for packing a liquid form drug, the other end serving as a diluent channel to be connected to a diluent container for packing a diluent, and the branch portion, in which the liquid form drug channel and the diluent channel are joined to each other, serving as a mixing channel to be connected to a mixing container for packing the mixed solution of the liquid form drug and the diluent.

**Please amend the paragraph beginning on page 9, line 27, as follows:**

Furthermore, a mixing tube in accordance with ~~claim 15~~ the 15<sup>th</sup> aspect of the present invention, which is the mixing tube to be used in the admixture machine for infusion according to ~~any of claims 1 to 13~~ the first to 13<sup>th</sup> aspect, is provided with a liquid form drug channel one end of which is connected to a liquid form drug container for packing a liquid form drug and a diluent channel one end of which is connected to a diluent container for packing a diluent individually, with the other ends of the channels being connected to a mixing container for packing a mixed solution of the liquid form drug and the diluent.

**Please amend the paragraph beginning on page 10, line 7, as follows:**

A mixing tube in accordance with ~~claim 16~~ the 16<sup>th</sup> aspect of the present invention, which is the mixing tube to be used in the admixture machine for infusion according to ~~claim 14 or claim 15~~ the 14<sup>th</sup> or 15<sup>th</sup> aspect, is designed so that the mixing tube is provided with a liquid form drug container connecting port to be connected to a port of the liquid form drug container at an end of the liquid form drug channel and a diluent container connecting port to be connected to a port of the diluent container at an end of the diluent channel, with the liquid form drug container connecting port being formed into a shape that is only connectable to the liquid form drug container. With this arrangement, it becomes possible to prevent an erroneous connection of the liquid form drug container.

**Please amend the paragraph beginning on page 10, line 20, as follows:**

A mixing tube in accordance with ~~claim 17~~ the 17<sup>th</sup> aspect of the present



invention, which is the mixing tube to be used in the admixture machine for infusion according to ~~any of claims 14 to 16~~ the 14<sup>th</sup> to 16<sup>th</sup> aspect, is designed so that the liquid form drug container connecting port of the mixing tube has a securing member used for securing the port of the liquid form drug container. This arrangement makes it possible to positively secure the liquid form drug container connecting port and the port of the liquid form drug container.

**Please amend the paragraph beginning on page 10, line 28, as follows:**

A liquid form drug container in accordance with ~~claim 18~~ the 18<sup>th</sup> aspect of the present invention, which is the liquid form drug container to be used in the admixture machine for infusion according to ~~any of claims 1 to 13~~ the first to 13<sup>th</sup> aspect, is provided with: a discharging outlet, placed at its part, which is connected to a liquid form drug container connecting port formed at an end portion of the liquid form drug channel.

**Please amend the paragraph beginning on page 11, line 5, as follows:**

Moreover, a liquid form drug container in accordance with ~~claim 19~~ the 19<sup>th</sup> aspect of the present invention, which is the liquid form drug container according to ~~claim 18~~ the 18<sup>th</sup> aspect, is designed so that liquid form drugs that have been primarily diluted are contained in the liquid form drug container in a plurality of quantity to be applied. With this arrangement, admixing and preparation operations can be carried out for a plurality of patients without the necessity of exchanging the liquid form drug containers.

**Please amend the paragraph beginning on page 11, line 13, as follows:**

A liquid form drug container in accordance with ~~claim 20~~ the 20<sup>th</sup> aspect of the present invention, which is the liquid form drug container according to ~~claim 18~~ the 18<sup>th</sup> aspect, is designed so that undiluted liquid form drugs are contained in the liquid form drug container in a plurality of quantity to be applied.

**Please amend the paragraph beginning on page 11, line 18, as follows:**

Moreover, a liquid form drug container in accordance with ~~claim 21~~ the 21<sup>st</sup> aspect of the present invention, which is the liquid form drug container according to ~~claim 18~~ the 18<sup>th</sup> aspect, is provided with a liquid form drug packing unit for packing the liquid form drug, and a primary diluent packing unit for packing a primary diluent that is used for primarily diluting the liquid form drug, and in this structure, a communicating unit, which is used for mixing the liquid form drug and the primary diluent, is placed between the liquid form drug packing unit and the primary diluent packing unit. With this arrangement, it becomes possible to carry out a admixture process with high precision. Moreover, since a liquid form drug, which has been already primary-diluted, is connected to the mixing tube, it becomes possible to lessen the risk to medical staffs upon connection.

**Please amend the paragraph beginning on page 12, line 2, as follows:**

A liquid form drug container in accordance with ~~claim 22~~ the 22<sup>nd</sup> aspect of the present invention, which is the liquid form drug container according to ~~claim 21~~ the 21<sup>st</sup> aspect, is prepared as a plastic bag having two chambers separated by an easily-peelable seal, with one of the chambers packing an undiluted liquid form drug and the other chamber packing a primary diluent.

**Please amend the paragraph beginning on page 12, line 8, as follows:**

Moreover, a liquid form drug container in accordance with ~~claim 23 the~~ 23<sup>rd</sup> aspect of the present invention, which is the liquid form drug container according to ~~claim 18 the~~ 18<sup>th</sup> aspect, is provided with a connecting unit, placed at a position virtually opposing to the port of the liquid form drug container, which allows transfer with another liquid form drug container. This arrangement allows a primary diluent or a higher-order diluent.

**Please amend the paragraph beginning on page 12, line 15, as follows:**

A liquid form drug container in accordance with ~~claim 24 the~~ 24<sup>th</sup> aspect of the present invention, which relates to the liquid form drug container according to ~~claim 23 the~~ 23<sup>rd</sup> aspect, is designed so that the connecting unit is provided with a double-sided needle or transfer needle. This arrangement makes it possible to easily break the connecting portion between the respective containers to positively allow transfer between the containers.

**Please amend the paragraph beginning on page 12, line 22, as follows:**

A mixing container in accordance with ~~claim 25 the~~ 25<sup>th</sup> aspect of the present invention, which is used in the admixture machine for infusion according to ~~any of claims 1 to 13 the~~ first to 13<sup>th</sup> aspect, is designed so that the mixing container is integrally formed with the mixing tube.

**Please amend the paragraph beginning on page 12, line 26, as follows:**

A admixture preparation system of infusion in accordance with ~~claim 26~~ the 26<sup>th</sup> aspect of the present invention, which has the admixture machine for infusion and the mixing tube according to ~~any of claims 1 to 13~~ the first to 13<sup>th</sup> aspect, is designed so that the mixing tube to be inserted to the guide unit of the admixture machine for infusion has a structure branched into a tong shape, that is, a tong structure having one of branched ends serving as a liquid form drug channel to be connected to a liquid form drug container for packing a liquid form drug, the other end serving as a diluent channel to be connected to a diluent container for packing a diluent, and the branch portion, in which the liquid form drug channel and the diluent channel are joined to each other, serving as a mixing channel to be connected to a mixing container for packing the mixed solution of the liquid form drug and the diluent; and in this structure, the guide unit of the admixture machine for infusion has at least a liquid form drug channel insertion unit to which the liquid form drug channel is inserted and a diluent channel insertion unit to which the diluent channel is inserted.

**Please amend the paragraph beginning on page 13, line 14, as follows:**

Moreover, a admixture preparation system of infusion in accordance with ~~claim 27~~ the 27<sup>th</sup> aspect of the present invention, which has the admixture machine for infusion and the mixing tube according to ~~any of claims 1 to 13~~ the first to 13<sup>th</sup> aspect, is designed so that the mixing tube to be inserted to the guide unit of the admixture machine for infusion has a liquid form drug channel that is connected to a liquid form drug container for packing a liquid form drug and a diluent channel that is connected to a diluent container for packing a diluent, with one end of the liquid form drug channel being connected to the liquid form drug container and one end of the diluent channel being connected to the diluent container; and in this structure, the guide unit of the admixture

machine for infusion has at least a liquid form drug channel insertion unit to which the liquid form drug channel is inserted and a diluent channel insertion unit to which the diluent channel is inserted.

**Please amend the paragraph beginning on page 13, line 30, as follows:**

Furthermore, a admixture preparation system of infusion in accordance with ~~claim 28~~ the 28<sup>th</sup> aspect of the present invention, which has the admixture machine for infusion and the mixing tube according to ~~claim 26 or claim 27~~ the 26<sup>th</sup> to 27<sup>th</sup> aspect, is designed so that the mixing tube to be inserted to the guide unit of the admixture machine for infusion is integrally formed with the admixture machine for infusion.

**Please amend the paragraph beginning on page 14, line 7, as follows:**

A admixture preparation system of infusion in accordance with ~~claim 29~~ the 29<sup>th</sup> aspect of the present invention, which relates to the admixture preparation system according to ~~claim 26 or claim 27~~ the 26<sup>th</sup> to 27<sup>th</sup> aspect, is further provided with a container weight-measuring unit which allows controls on the does of the liquid form drug and the diluent by feeding back weight changes in the diluent container or the mixing container.

**Please amend the paragraph beginning on page 14, line 14, as follows:**

A admixture method of infusion in accordance with ~~claim 30~~ the 30<sup>th</sup> aspect of the present invention, in which a admixture machine for infusion for admixture preparation predetermined quantity of a liquid form drug to be administrated to a patient and a diluent is used, is provided with the steps of:

inputting predetermined information involving data concerning at least the body surface area, the AUC or the body weight of the patient to the admixture machine for infusion; allowing the admixture machine for infusion to determine the does of a liquid form drug and the amount of a diluent which are both to be delivered based upon the inputted information, and also to calculate the delivery does of the liquid form drug and the diluent based upon the determined quantity thereof; and based on the delivery does of the liquid form drug and the diluent that have been calculated, allowing liquid delivery units, formed at a guide unit for inserting a mixing tube which provides channels of the liquid form drug and the diluent to the admixture machine for infusion, to respectively contact with the liquid form drug channel forming a channel for the liquid form drug and the diluent channel forming a channel for the diluent in the mixing tube so that the liquid form drug and the diluent are respectively delivered.

**Please amend the paragraph beginning on page 47, line 18, as follows:**

In the case when the mixing container and the mixing tube are formed into an integral part, for example, as shown in Fig. 11, the mixing tube is melted to be closed near the connecting port 33a, and cut at this portion. With respect to such a melt-closing and cutting means, conventionally known means and means to be developed in the future may be used, and these means may be attached to the admixture machine in accordance with the embodiment of the present invention. This application is based on application No. 2002-334425 filed in Japan on November 18, 2002, the content of which is incorporated hereinto by reference.